

Research article Ερευνητική εργασία

Validation of the Youth Efficacy/Empowerment Scale – Mental Health Finnish version

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Adolescents face mental health problems and still their mental health needs are often neglected. Empowerment provides adolescents with the skills to impact their own lives and communities in general. The aim of the study is to examine the validity and reliability of the Finnish version of the Youth Efficacy/Empowerment Scale – Mental Health (YES-MH). Data was collected through an online questionnaire from pupils aged 12–17 years in Western Finland, comprised of the following instruments; the YES-MH, the Goodman's the Strengths and Difficulties Questionnaire (SDQ), and the Warwick-Edinburgh Mental Wellbeing Scale. Exploratory factor analysis was carried out to evaluate construct validity and disclose underlying structures which yielded the following subscales: Self, Services, System. The internal consistency of subscales was analyzed with Cronbach's α . Construct validity was further investigated by computing the Pearson's correlations coefficients between the subscales. Furthermore, correlations with SDQ and mental well-being dimensions were explored as measures of convergent validity. In the final model all items the Youth Efficacy/Empowerment Scale – Mental Health were entered into the factor analysis. All factor loadings were more than 0.40, ranging from 0.63 to 0.89. All the scales exceeded the minimum reliability standard of 0.70 and all corrected item-total correlations were high. All the YES-MH subscales were significantly and positively correlated each other with correlations coefficients ranging from medium to high. Correlations of Mental Well-being score with Self and Services subscales were significant. Moreover, Self subscale was significantly correlated with all SDQ dimensions. Services subscale was significantly correlated with Emotional symptoms and total SDQ score, while System subscale was significantly correlated with Conduct problems. The exploratory factor analysis showed a clear factor structure and the results suggest that the YES-MH is a reliable scale for assessing empowerment among young people. The YES-MH can be useful for health professionals not only as an assessment tool but also

when they need to evaluate mental health interventions and examine empowerment as an outcome. However, further research can provide insights for the use of the scale in specific adolescent target groups and among different ethnic groups as well.

Key words: Youth, adolescents, efficacy, empowerment, Finland.

Introduction

Globally, 10% to 20% of children and adolescents are affected by mental health problems.¹ As young people experience adolescence, some confront particularly difficult struggles. While many young people will make at least minimally successful transitions to adulthood, a large number face problems that could jeopardize their future and have negative repercussions for broader society.² For this age group, mental health problems is a leading cause of health-related disability, although the mental health needs of children and adolescents are often neglected.¹

Empowerment is a core concept of WHO's vision of health promotion.³ Mental health promotion conceptualizes mental health in positive rather than in negative terms and delivers effective programmes designed to reduce health inequalities in an empowering, collaborative and participatory manner.⁴ Mental health promotion is important as it significantly improves population's health and well-being.⁵

Empowerment is defined as a process through which people, organisations, and communities gain mastery over their lives.⁶ Similarly, empowerment is defined as a process of gaining control over one's life and having the ability to influence organizational and societal structure in which one lives.⁷

WHO defines adolescents as those people between 10 and 19 years of age. In addition, the WHO uses the term young people for those between 10 and 24 years of age to combine adolescents and youth, while United Nations define the term youth for people between 15 and 24 years of age.⁸

Adolescents need guidance and support to use power effectively and adults have an important role in assisting this process, and conceptualizing adolescents as research partners with valuable voices promises to create future possibilities for important health promoting change.⁹ Youth empowerment

is the outcome by which youth, as change agents, gain the skills to impact their own lives and lives of other individuals, organizations and communities.¹⁰ Empowerment embraces the idea that individuals have the right to make their own choices about their health care. Walker and colleagues¹¹ argue that young people should be encouraged to take an active role in shaping their own mental health care as well as the policies and decisions that affect mental health services and systems. Furthermore, it is found that data for some key aspects of development and well-being, such as adolescent empowerment, including decision-making, agency or self-efficacy, participation and civic engagement are limited.¹²

In a mental health context, empowerment refers to the level of choice, influence and control that users of mental health services can exercise over events in their lives.³ One of the six key messages for action of the European Strategy for the prevention and control of non-communicable diseases is that people should be empowered to promote their own health, interact effectively with health services and be active partners in managing disease.¹³ Using validated tools to measure empowerment will assist the design, implementation and evaluation of empowerment strategies in health promotion programmes.¹⁴ Thus, the aim of the study was to examine the validity and reliability of the Finnish version of the Youth Efficacy/Empowerment Scale – Mental Health. Since there is no similar scale in Finnish, the Youth Efficacy/Empowerment Scale – Mental Health was selected because it is a scale that examines empowerment from the perspective of young people themselves. Hence, the ultimate goal is to provide a reliable scale for assessing empowerment among adolescents.

Material and method

Participants and procedure

Data collection was conducted in one randomly selected secondary school in Western Finland. Data was collected during a school day by an on-line

questionnaire from pupils aged 12–17 years. Data collection and participants' recruitment were facilitated by the headmaster and the school's teachers. Participants were included in the study if they were secondary school pupils understanding Finnish and their parents/guardians did not deny their participation in the study.

Ethical considerations

The study obtained ethical approval from the Ethical Committee of Turku University. In addition, all potential participants and their parents/guardians were informed about the study during recruitment emphasising the anonymity and voluntariness of participation. Parents/guardians could deny their child's participation and even when parents/guardians had agreed, it was pupils' choice to take part or not. Pupil's response to online questionnaire was considered their informed consent.¹⁵

Measures

The online questionnaire was comprised of the following instruments: the Youth Efficacy/Empowerment Scale – Mental Health (YES-MH),¹⁶ the Goodman's Strengths and Difficulties Questionnaire (SDQ),¹⁷ and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS),¹⁸ and a demographic characteristics questionnaire.

The YES-MH, developed by Walker & Powers,¹⁶ is an adaptation from the Family Empowerment Scale.¹⁹ It was designed to assess youth perceptions of confidence and efficacy with respect to managing their own mental health condition, managing their own services and supports, and using their experience and knowledge to help peers and improve service systems.¹⁶

The YES-MH consists of 20 items on subscales which reflect efficacy/empowerment at three levels: (1) self (confidence and optimism about coping with/managing one's condition), (2) services (confidence and capacity to work with service providers to select and optimize services and supports), and (3) system (confidence and capacity to help providers improve services and to help other youth understand the service system). The items are rated on a 5-point scale from "never or almost never" to

"always or almost always". The total score for overall youth empowerment ranges from 20 to 100, with higher scores indicating higher levels of empowerment.

The method of forward- and back-translations was used as it is suggested by WHO²⁰ for the translation and adaptation of instruments. The YES-MH was translated into Finnish by two bilingual individuals (one of them is health care professional). An expert panel discussed and worked on reconciliation of the forward translated questionnaire. Then, the Finnish version was back-translated to English by a native English speaker, who was not familiar with the original version of the questionnaire. A cognitive debriefing process was also followed for the cultural adaptation of the questionnaire. In this step, the YES-MH was administered to a few adolescents in order to assess the clarity, appropriateness of wording and acceptability of the translated questionnaire. Then, the last adaptations to the questionnaire were made.

The SDQ is a brief psychiatric assessment and screening tool of 25 items. Each item is scored in 3-point scale from 0=not true, 1=somewhat true to 2=certainly true. Twenty of the items can be scored summative and shown as a score of total difficulties. The instrument can also be divided into five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour.²¹ The Finnish version of SDQ was validated by Koskelainen, Sourander and Kaljonen.²²

Finally, the WEMWBS¹⁸ is consisted of 14 items on mental well-being. Items are Likert scaled from 1 (never) to 5 (all the time). The Finnish version was translated in 2015 by Finnish National Institute for Health and Welfare.²³

Data analysis

Exploratory factor analysis was carried out to evaluate construct validity, disclose underlying structures and possibly reduce the number of variables of the study questionnaire. Principal component analysis was chosen as extraction method using Varimax rotation. The cut-off point for factor loadings was 0.40 and for eigenvalues it was 1.00. The internal consistency of subscales was analyzed

with Cronbach's alpha. Subscales with reliabilities equal to or greater than 0.70 were considered acceptable.

Construct validity was further investigated by computing the Pearson's correlation coefficients between the subscales. Furthermore, correlations with SDQ and mental well-being dimensions were explored as measures of convergent validity. Correlation coefficients between 0.1 and 0.3 were considered low, between 0.31 and 0.5 moderate and those over 0.5 were considered high. The questionnaire subscales were compared according to sex, age group and emotional or mental health difficulties using Student's t-tests. P values reported are two-tailed. The level of statistical significance was set at 0.05 and analysis was conducted using SPSS 22.0 Statistical Software.

Results

The sample consisted of 114 participants (43% boys and 55.3% girls) (table 1). There was a 6.1% of the participants who had received medication for emotional or mental health difficulties, while 8.8% had been given diagnosis for their emotional or mental health difficulties.

An exploratory factor analysis with principal component method and with Varimax rotation was conducted on the sample. Using the latent root criterion of retaining factors with Eigenvalues greater than 1.0, a three-factor structure was identified, with the extracted factors explaining 70.9% of the total variance. In the final model all items were entered into the factor analysis. All factor loadings were more than 0.40, ranging from 0.63 to 0.89. The three factors that were emerged in the current study were: Self, Services and System which were in accordance with the original version (table 2). In addition, the items did not differ in their loadings of that of the original version.

Cronbach's alpha estimated along with the mean scale scores for the extracted components (table 3). All the scales, exceeded the minimum reliability standard of 0.70 and all corrected item-total correlations were high. Cronbach's alpha was 0.93 for Self subscale, 0.94 for Services subscale and 0.93 for system subscale.

Table 1. Sample characteristics (n=114).

Characteristics	N (%)
Gender	
Boys	49 (43)
Girls	63 (55.3)
Other	2 (1.7)
Age, mean (SD)	14.2 (1.04)
Participants who have received medication for emotional or mental health difficulties	7 (6.1)
Participants who have been given a name or diagnosis for their emotional or mental health difficulties	10 (8.8)
Employed father	90 (78.9)
Employed mother	94 (82.5)
Educational level of the mother	
Basic education	5 (4.4)
Vocational education	15 (13.2)
Tertiary education	53 (46.5)
Don't know/don't want to answer	41 (36.0)
Educational level of the father	
Basic education	7 (6.1)
Vocational education	20 (17.5)
Tertiary education	40 (35.1)
Don't know/don't want to answer	47 (41.2)
Living situation now	
Independent/on its own	1 (0.9)
With both parents	72 (63.2)
With one parent	34 (29.8)
With other relatives	1 (0.9)
In a psychiatric hospital	1 (0.9)
In a correctional facility	1 (0.9)
Other	4 (3.5)

All subscales were significantly and positively correlated each other with correlations coefficients ranging from medium to high. Correlations of mental well-being (WEMWBS score) with Self and Services subscales were significant. Moreover, Self subscale was significantly correlated with all SDQ dimensions. Services subscale was significantly correlated with Emotional symptoms and total SDQ score, while System subscale was significantly correlated with Conduct problems (table 4).

Table 2. Factor loadings from the results of exploratory factor analysis.

Item	Self	Services	System
1. I focus on the good things in life, not just the problems	0.87		
2. I make changes in my life so I can live successfully with my emotional or mental health challenges	0.75		
3. I feel I can take steps toward the future I want	0.86		
5. I know how to take care of my mental or emotional health	0.75		
6. When problems arise with my mental health or emotions, I handle them pretty well	0.89		
7. I feel my life is under control	0.85		
8. When a service or support is not working for me, I take steps to get it changed		0.75	
9. I tell service providers what I think about services I get from them		0.71	
10. I believe that services and supports can help me reach my goals		0.80	
12. My opinion is just as important as service providers' opinions in deciding what services and supports I need		0.79	
13. I know the steps to take when I think that I am receiving poor services or supports		0.75	
14. I understand how my services and supports are supposed to help me		0.72	
15. I work with providers to adjust my services or supports so they fit my needs		0.75	
16. I feel I can help improve services or supports for young people with emotional or mental health difficulties			0.78
17. I have ideas about how to improve services for young people with emotional or mental health difficulties			0.79
18. I know about the legal rights that young people with mental health difficulties have			0.63
20. I take opportunities to speak out and educate people about what it's like to experience emotional or mental health difficulties			0.81
21. I feel that I can use my knowledge and experience to help other young people with emotional or mental health difficulties			0.86
22. I tell people in agencies and schools how services for young people can be improved			0.85
23. I help other young people learn about services or supports that might help them			0.86

No significant differences were found on sex, age and emotional or mental health difficulties, with the exception of the score on System subscale that was significantly greater in adolescents aged 15 or more years as compared to those that aged less than 15 years (table 5).

Discussion

The aim of this study was to validate a questionnaire assessing empowerment among youth aged 12–17 in Finland. Adolescents are developing and

consolidating their sense of self, they want greater independence and responsibility and they want to do something about the social issues that they encounter in their lives.¹² Furthermore, empowerment is important for the young people at risk.^{24,25} Thus, there is a need for available instruments that contribute to a better understanding and assess empowerment among adolescents.

The exploratory factor analysis showed a clear factor structure and our results suggest that the YES-MH is a reliable scale for assessing empower-

Table 3. Corrected item-total correlations, internal consistency reliability and mean values for the YES-MH questionnaire.

	Corrected Item – Total Correlation	Cronbach's a if Item Deleted	Cronbach's a	Mean (SD)
Self			0.93	12.0 (5.5)
item 1	0.85	0.91		1.9 (1)
item 2	0.71	0.93		2.2 (1.1)
item 3	0.80	0.92		1.9 (1)
item 5	0.70	0.93		2.0 (1.2)
item 6	0.88	0.90		2.0 (1.1)
item 7	0.84	0.91		1.9 (1.1)
Services			0.94	19.3 (8.3)
item 8	0.78	0.94		2.7 (1.4)
item 9	0.75	0.94		3 (1.4)
item 10	0.88	0.93		2.7 (1.4)
item 12	0.79	0.94		2.9 (1.4)
item 13	0.81	0.93		2.6 (1.3)
item 14	0.80	0.93		2.6 (1.3)
item 15	0.85	0.93		2.9 (1.4)
System			0.93	23.3 (8.8)
item 16	0.83	0.93		3.1 (1.5)
item 17	0.87	0.93		3.4 (1.4)
item 18	0.75	0.93		3.2 (1.4)
item 20	0.79	0.93		3.3 (1.4)
item 21	0.88	0.93		3.3 (1.4)
item 22	0.90	0.93		3.6 (1.4)
item 23	0.92	0.94		3.5 (1.4)

Table 4. Pearson's correlation coefficients between the subscales of YES-MH, SDQ and mental well-being.

	Self	Services	System
Self		0.57 ⁱⁱⁱ	0.32 ⁱⁱ
Services			0.67 ⁱⁱⁱ
Emotional symptoms	0.42 ⁱⁱⁱ	0.33 ⁱⁱⁱ	0.06
Conduct problems	0.30 ⁱⁱ	0.03	-0.20 ⁱ
Hyperactivity/ inattention	0.37 ⁱⁱⁱ	0.17	-0.10
Peer relationship problems	0.38 ⁱⁱⁱ	0.08	-0.15
Prosocial behaviour	-0.19 ⁱ	0.06	0.13
Total SDQ score	0.47 ⁱⁱⁱ	0.21 ⁱ	-0.09
Mental well-being	-0.38 ⁱⁱⁱ	-0.20 ⁱ	-0.08

(i) $p < 0.05$, (ii) $p < 0.01$, (iii) $p < 0.001$

Table 5. Association of YES-MH subscales with sex, age & emotional/mental health difficulties.

	Self		p*	Services		p*	System	
	Mean (SD)			Mean (SD)			Mean (SD)	
Gender								
Boys	11.9 (5.8)	0.855	17.8 (7.8)	0.145	22.0 (8.7)	0.186		
Girls	11.7 (5.2)		20.1 (8.6)		24.3 (9.0)			
Age								
<15	12.2 (5.5)	0.770	18.1 (8.0)	0.192	20.4 (9.4)	0.002		
≥15	11.9 (5.6)		20.2 (8.5)		25.4 (7.8)			
Received medication for emotional or mental health difficulties								
Yes	13.9 (9.1)	0.363	18.9 (8.6)	0.874	19.6 (9.9)	0.247		
No	11.9 (5.3)		19.4 (8.3)		23.6 (8.8)			
Given a name or diagnosis for their emotional or mental health difficulties								
Yes	11.8 (4.9)	0.901	18.1 (6.2)	0.624	19.5 (6.9)	0.152		
No	12.0 (5.6)		19.5 (8.5)		23.7 (8.9)			

*Student's t-test

ment among young people. According to Costello and Osborne,²⁶ factors with loadings greater than 0.50, made up of 4 or more items, are solid and of practical relevance. In the current exploratory factor analysis, factor loadings ranged from 0.63 to 0.89.

Finally, the mean scores of each subscale did not differ significantly from those of previous studies using the original version. Specifically, in the current study which included general population, the mean scores for the subscales Self, Services and System were 12 (SD=5.5), 19.3 (SD=8.3) and 23.3 (8.8), respectively. Walker, Thorne & Powers¹⁰ found mean score 22.88 on Self subscale (SD=4.51), on Service 26.77 (SD=5.78) and on System 23.08 (SD=7.06). Later, Huscroft-D'Angelo et al,²⁷ in their study among youth departing therapeutic residential care, found a mean score on Self 23.63 (SD=4.82), on Services 26.17 (SD=5.69) and on System 22.79 (SD=6.96).

It was also found in the current study that the System subscale was significantly greater in adolescents aged 15 or more years as compared to

those that aged less than 15 years. However, a study among adolescents and young adults with cancer showed that low levels of empowerment were associated with low levels of autonomy and social support, female sex, and coping difficulties.²⁸

Moreover, correlations of mental well-being (WEMWBS score) with Self and Services subscales were found significant. This can be explained since the subscale Self included items in regards to the individual's mental health and wellbeing and in the subscale of Services there are items about the provided services that may provide the needed support to each individual. In addition, the Self subscale was significantly correlated with all SDQ dimensions which was expected since the SDQ includes items that reflect one's self. Services subscale was significantly correlated with Emotional symptoms since these items refer to several personal complains and total SDQ score which refers to the one's difficulties. System subscale was significantly correlated with Conduct problems which includes items about conduct difficulties and thus can be correlated with the System which includes

items that reflect the ability to help others and the services to be improved.

Although the YES-MH presents sufficient evidence of validity and reliability, there were some limitations in the current study: the participants were recruited from the general population, in a school setting and the study did not target only participants who are challenged with emotional or mental health problems. Further research is needed in order to validate the YES-MH among different young populations. Moreover, the results did not show any differences between boys and girls which may be affected by the number of participants. A larger study should explore for possible gender differences.

Based on the above, it can be concluded that the Finnish version of the YES-MH is a solid and robust

instrument to assess empowerment, which can help health professionals to better understand its conceptual and empirical foundations. Its application is simple and not time consuming. WHO¹² claims that the unique nature and importance of adolescence mandates explicit and specific attention in programmes.

Hence, the YES-MH can be useful for health professionals not only as an assessment tool but also when they need to evaluate mental health interventions and examine empowerment as an outcome. However, further research can provide insights for specific adolescent target groups and among different ethnic groups as well.

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Στάθμιση της φινλανδικής εκδοχής της κλίμακας Αποτελεσματικότητας/Ενδυνάμωσης των Νέων – Ψυχικής Υγείας

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Οι έφηβοι αντιμετωπίζουν προβλήματα ψυχικής υγείας, αλλά ακόμα συχνά παραμελούνται οι ανάγκες ψυχική υγείας τους. Η ενδυνάμωση παρέχει στους εφήβους τις δεξιότητες για να επηρεάσουν τη ζωή τους αλλά και την κοινότητα εν γένει. Σκοπός της μελέτης είναι να εξετάσει την εγκυρότητα και την αξιοπιστία της φινλανδικής εκδοχής της Κλίμακας Αποτελεσματικότητας/Ενδυνάμωσης των Νέων - Ψυχικής Υγείας (Youth Efficacy/Empowerment Scale – Mental Health, YES-MH). Η συλλογή των δεδομένων πραγματοποιήθηκε μέσω ερωτηματολογίου στο διαδίκτυο από μαθητές ηλικίας 12–17 ετών στη Δυτική Φινλανδία. Το ερωτηματολόγιο περιλάμβανε τα ακόλουθα εργαλεία: την κλίμακα YES-MH, το Ερωτηματολόγιο Δυνατοτήτων και Δυσκολιών (Goodman's, the Strengths and Difficulties Questionnaire, SDQ) και η Κλίμακα Ψυχικής Ευεξίας Warwick-Edinburgh (Warwick-Edinburgh Mental Wellbeing Scale, WEMWBS). Διεξήχθη διερευνητική ανάλυση παραγόντων για τον έλεγχο της δομικής/εννοιολογικής εγκυρότητας καθώς και να παρατεθούν οι υποκείμενες δομές καταλήγοντας στις εξής υποκλίμακες: Εαυτός (Self), Υπηρεσίες (Services), Σύστημα (System). Η εσωτερική συνάφεια των υποκλιμάκων υπολογίστηκε με τον συ-

ντελεστή Cronbach α . Η δομική/ενοιολογική εγκυρότητα εξετάστηκε περαιτέρω με υπολογισμό των συντελεστών συσχέτισης Pearson μεταξύ των υποκλιμάκων. Επιπλέον, διερευνήθηκε η συγκλίνουσα εγκυρότητα μέσω συσχετισμών με το ερωτηματολόγιο SDQ και την κλίμακα WEMWBS. Στο τελικό μοντέλο εισήχθησαν στην ανάλυση παραγόντων όλα τα λήμματα της κλίμακας YES-MH. Όλες οι φορτίσεις των παραγόντων ήταν περισσότερο από 0,40 (κυμαινόμενες από 0,63 έως 0,89). Όλες οι κλίμακες υπερέβησαν το ελάχιστο 0,70 αξιοπιστίας. Όλες οι υποκλίμακες εμφάνισαν σημαντικά θετική συσχέτιση μεταξύ τους (συντελεστές συσχετισμού: μέσο έως υψηλό). Οι συσχετίσεις της Κλίμακας Ψυχικής Ευεξίας με τις υποκλίμακες Εαυτός και Υπηρεσίες ήταν σημαντικές. Επιπλέον, η υποκλίμακα Εαυτός ήταν σημαντικά συσχετισμένη με όλες τις διαστάσεις του SDQ. Η υποκλίμακα Υπηρεσίες συσχετίστηκε σημαντικά με τα συναισθηματικά συμπτώματα και το συνολικό σκορ του SDQ, ενώ η υποκλίμακα Σύστημα συσχετίστηκε σημαντικά με τα προβλήματα συμπεριφοράς. Η διερευνητική ανάλυση παραγόντων έδειξε μια σαφή δομή των παραγόντων και τα αποτελέσματα έδειξαν ότι η κλίμακα YES-MH είναι μια αξιόπιστη κλίμακα για την εκτίμηση της ενδυνάμωσης των νέων. Η κλίμακα YES-MH μπορεί να είναι χρήσιμη για τους επαγγελματίες υγείας ως εργαλείο εκτίμησης, αλλά και για την αξιολόγηση παρεμβάσεων ψυχικής υγείας και την εξέταση της ενδυνάμωσης ως αποτέλεσμα. Ωστόσο, περαιτέρω μελέτη μπορεί να προσφέρει ικανές πληροφορίες για τη χρήση της σε συγκεκριμένες πληθυσμιακές ομάδες εφήβων καθώς και σε έφηβους διαφορετικών εθνοτήτων.

Λέξεις ευρητηρίου: Νέοι, έφηβοι, αποτελεσματικότητα, ενδυνάμωση, Φινλανδία.

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